

C4D 2#2

CASE D0032 NP *PS*

CERTIFICATE OF MAILING

I hereby certify that this paper (along with any paper referred to as being attached or enclosed) is being deposited with the United States Postal Service on the date shown below with sufficient postage as first class mail in an envelope addressed to the: Assistant Commissioner for Patents, Washington, D.C. 20231.

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Keith R. Lange  
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*K. Lange*  
Signature

\_\_\_\_\_  
March 1, 2002  
Date

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

IN RE APPLICATION OF

C. PATRICK MCATEE

APPLICATION NO: 10/045,202

FILED: OCTOBER 22, 2001

FOR: MODULATORS OF BRUTON'S TYROSINE KINASE AND  
BRUTON'S TYROSINE KINASE INTERMEDIATES AND METHODS  
FOR THEIR IDENTIFICATION AND USE IN THE TREATMENT AND  
PREVENTION OF OSTEOPOROSIS AND RELATED DISEASE  
STATES

Assistant Commissioner for Patents  
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

Applicant believes this paper is being filed before the mailing date of a first Office Action on the merits, and so under 37 C.F.R. §1.97(b)(3) no fees are required. If a fee is deemed to be required, the Commissioner is hereby authorized to charge such fee to Deposit Account No. 19-3880.

In accordance with 37 C.F.R. §1.56, applicant wishes to call the Examiner's attention to the references cited on the attached form(s) PTO-1449.

Copies of these references are enclosed herewith.

The Examiner is requested to consider the foregoing information in relation to this application and indicate that each reference was considered by returning a copy of the initialed PTO 1449 form(s).

Respectfully submitted,

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Keith R. Lange  
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Reg. No. 44,201

Date: March 1, 2002

## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

ATTY. DOCKET NO.  
D0032 NP  
APPLICATION NO.  
10/045,202  
APPLICANT  
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Group

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE

## FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	OFFICE	CLASS	SUBCLASS	TRANSLATION YES NO

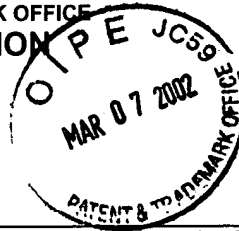
## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent pages, Etc.)

AA	Marchisio P.C., Cirillo D., Naldini L., Primavera M.V., Teti A., Zamboni-Zallone A. 1984. Cell-substratum interaction of cultured avian osteoclasts is mediated by specific adhesion structures. <i>Journal of Cell Biology</i> 99(5):1696-1705.
AB	Simonet W.S., et. al. 1997. Osteoprotegerin: a novel secreted protein involved in the regulation of bone density. <i>Cell</i> 89(2):309-319.
AC	Kong YY et. al. 1999. OPGL is a key regulator of osteoclastogenesis, lymphocyte development and lymph-node organogenesis. <i>Nature</i> 397(6717):315-323.
AD	Nakamura I., Sasaki T., Tanaka S., Takahashi N., Jimi E., Kurokawa T., Kita Y., Ihara S., Suda T., Fukui Y. 1997. Phosphatidylinositol-3 kinase is involved in ruffled border formation in osteoclasts. <i>Journal of Cellular Physiology</i> 172(2):230-239.
AE	Chellaiah M.A., Soga N., Swanson S., McAllister S., Alvarez U., Wang D., Dowdy S.F., Hruska K.A. 2000. Rho-A is critical for osteoclast podosome organization, motility, and bone resorption. <i>Journal of Biological Chemistry</i> 275(16):11993-20002.
AF	Schwartzberg P.L., Xing L., Hoffmann O., Lowell C.A., Garrett L., Boyce B.F., Varmus H.E. 1997. Rescue of osteoclast function by transgenic expression of kinase-deficient Src in src-/- mutant mice. <i>Genes &amp; Development</i> 11(21):2835-2844.
AG	Matsumoto M., Sudo T., Saito T., Osada H., Tsujimoto M. 2000. Involvement of p38 Mitogen-activated Protein Kinase Signaling Pathway in Osteoclastogenesis Mediated by Receptor Activator of NF-kappaB Ligand (RANKL). <i>Journal of Biological Chemistry</i> 275(40): 31155-31161.
AH	Petro J.B., Rahman S.M., Ballard D.W., Khan W.N. 2000. Bruton's tyrosine kinase is required for activation of IkappaB kinase and nuclear factor kappaB in response to B cell receptor engagement. <i>Journal of Experimental Medicine</i> 191(10):1745-1754.
AI	Pinschewer D.D., Ochsenbein A.F., Satterthwaite A.B., Witte O.N., Hengartner H., Zinkernagel R.M. 1999. A Btk transgene restores the antiviral TI-2 antibody responses of xid mice in a dose-dependent fashion. <i>European Journal of Immunology</i> 29(9):2981-2987.
AJ	Li T., Tsukada S., Satterthwaite A., Havlik M.H., Park H., Takatsu K., Witte ON. 1995 Activation of Bruton's tyrosine kinase (BTK) by a point mutation in its pleckstrin homology (PH) domain. <i>Immunity</i> . 2(5):451-460.
AK	Khan W.N., Alt F.W., Gerstein R.M., Malynn B.A., Larsson I., Rathbun G., Davidson L., Muller S., Kantor A.B., Herzenberg L.A., et al. 1995. Defective B cell development and function in Btk-deficient mice. <i>Immunity</i> 3(3):283-299.

FORM PTO-1449  
(REV. 7-85)U.S. DEPARTMENT OF COMMERCE  
PATENT AND TRADEMARK OFFICE

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AL	Satterthwaite A.B., Cheroutre H., Khan W.N., Sideras P., Witte ON. 1997. Btk dosage determines sensitivity to B cell antigen receptor cross-linking. Proceedings of the National Academy of Sciences of the United States of America 94(24):13152-13157.
AM	Satterthwaite A.B., Willis F., Kanchanastit P., Fruman D., Cantley L.C., Helgason C.D., Humphries R.K., Lowell C.A., Simon M., Leitges M., Tarakhovsky A., Tedder T.F., Lesche R., Wu H., Witte ON. 2000. A sensitized genetic system for the analysis of murine B lymphocyte signal transduction pathways dependent on Bruton's tyrosine kinase. Proceedings of the National Academy of Sciences of the United States of America 97(12):6687-6692.
AN	Yao L., Janmey P., Frigeri L.G., Han W., Fujita J., Kawakami Y., Apgar J.R., Kawakami T. 1999. Pleckstrin homology domains interact with filamentous actin. Journal of Biological Chemistry 274(28):19752-19761.
AO	Mohamed A.J., Vargas L., Nore B.F., Backesjo C.M., Christensson B., Smith C.I. 2000 Nucleocytoplasmic shuttling of Bruton's tyrosine kinase. Journal of Biological Chemistry 275(51):40614-40619.
AP	Egloff A.M., Desiderio S. 2001. Identification of Phosphorylation Sites for Bruton's Tyrosine Kinase within the Transcriptional Regulator BAP/TFII-I. Journal of Biological Chemistry 276(30):27806-27815.
AQ	Tatsuo Suda et al. 1999. Modulation of Osteoclast Differentiation and Function by the New Members of the Tumor Necrosis Factor Receptor and Ligand Families. Endocrine Reviews 20(3):345-357

EXAMINER

DATE CONSIDERED

\*EXAMINER: Initial of reference considered, whether or not citation is in conformance with MPEP 609: Draw a line through citation if not in conformance and not considered. Include a copy of this form with the next communication to applicant.